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Independent Claim 1 has been amended to recite data structures illustrated in the embodiment of Figure 2. In the attached Appendix I entitled "Support for Claims," in the left margin in boldface text surrounded by brackets are reference numerals for the newly added features. These reference numerals correspond to Figure 2 and are generally described in the specification at col. 5, although other portions of the specification may support the added

limitations. The limitations added to independent Claims 4 and 7 are the same or similar as the limitations added to Claim 1, and find support for the same reasons as the limitations of Claim 1 are supported.

The amendment to Claim 9 is to correct a minor error related to the preamble and is an obvious error.

Support for the features recited in Claims 10-12 are explained at the left margin in boldface text in Appendix I.

Claims 13-15, and 16-18, correspond to added Claims 10-12 and are supported for the same reasons.

Added independent Claim 19 is similar to the original independent Claim 1 but includes details of added features related to the implementation of Figure 3. The limitations appearing in Claim 19 which do not appear in original Claim 1 are supported by the reference numerals appearing in boldface text at the left margin of the corresponding portion of Claim 19.

Added dependent Claims 20-22 recite further details of the implementation of Figure 3 and the basis for the support of these limitations is provided in Appendix I.

Claims 23 and 24 correspond to original Claims 2 and 3.

Added independent Claim 25 corresponds to original patent Claim 4 with implementation details similar to Claim 19. Similarly, added independent Claim 31 corresponds to original patent Claim 7 with the implementation details of Figure 3.

**Dependent Claims 26-30 and 32-36 both correspond to Claims 20-24.**

Claims 37-40 relate to the data structures illustrated in Figure 2 and support for these claims can be found with reference to Claims 1 and 10-12 of Appendix I.

Added Claims 41-43 correspond to the data structures illustrated in Figure 3 and are

There may be additional support in the specification for all changes and additions to the claims.

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**APPENDIX I**  
**SUPPORT FOR CLAIMS**

1. A resource lock management system, comprising:

a lock data structure system which stores [storing] lock data representing granted and pending resource lock requests, wherein the data representing each granted and pending resource lock request includes: data indicating a resource to which access has been granted or requested, and an access mode associated with the resource lock request;

wherein a subset of the granted and pending resource lock requests are parameterized resource lock requests and the data representing each resource lock request in the subset further includes one or more parameter values indicating a data reliability classification associated with the resource lock request; and

a lock manager for evaluating, granting and denying resource lock requests, including determining when a resource lock request is unconditionally conflicting with any granted resource lock request, determining when the resource lock request is conditionally conflicting with any granted resource lock request, and evaluating the resource lock request with respect to each conditionally conflicting granted resource lock request by performing a predefined comparison of the parameter values for the resource lock request with the parameter values for each conditionally conflicting granted resource lock request,

wherein the lock data structure system includes:

[162-5] a first data structure which stores information of a pending or granted lock request, the first data structure including:

[181] a field which stores an access mode of a resource;

[184] a field which stores an identification of a transaction associated with the first data structure; and

[182] a field which stores parameters of a data reliability classification associated

with a pending or granted resource lock request;

[160-4] a second data structure which stores information of a lock, the second data structure including:

[170] a field which stores an identification of a lockable resource which corresponds to said data indicating a resource to which access has been granted or requested; and

[174] a field which references the first data structure.

10. A resource lock management system according to claim 1, wherein the lock data structure system further includes a third data structure, the third data structure including:

[154] a field which references the second data structure.

11. A resource management system according to claim 10, wherein:

the second data structure further includes:

[172] a field which stores aggregated read parameters of first data structures referenced by the second data structure; and

[173] a field which stores aggregated write parameters of first data structures referenced by the second data structure,

[col. 5, lns. 45-51] wherein the aggregated read and write parameters correspond to said one or more parameter values indicating a data reliability classification associated with the resource lock request.

12. A resource management system according to claim 11, wherein the second data structure further includes:

[171; col. 5, lns. 20-24] a field which stores an identification of a most restrictive access mode of the lockable resource and which corresponds to said access mode associated with the resource lock request.

19. A resource lock management system, comprising:

a lock data structure system which stores lock data representing granted and pending resource lock requests, wherein the data representing each granted and pending resource lock request includes: data indicating a resource to which access has been granted or requested, and an access mode associated with the resource lock request;

wherein a subset of the granted and pending resource lock requests are parameterized resource lock requests and the data representing each resource lock request in the subset further includes one or more parameter values indicating a data reliability classification associated with the resource lock request; and

a lock manager for evaluating, granting and denying resource lock requests, including determining when a resource lock request is unconditionally conflicting with any granted resource lock request, determining when the resource lock request is conditionally conflicting with any granted resource lock request, and evaluating the resource lock request with respect to each conditionally conflicting granted resource lock request by performing a predefined comparison of the parameter values for the resource lock request with the parameter values for each conditionally conflicting granted resource lock request,

wherein the lock data structure system includes:

[190-4] a first data structure which stores information of a lock, as well as the pending and granted requests thereof, the first data structure including:

[170] a field which stores an identification of a lockable resource which corresponds to said data indicating a resource to which access has been granted or requested; and;

[171] a field which stores an access mode of a resource which corresponds to said access mode associated with the resource lock request;

[172/173] a field which stores parameters of a data reliability classification associated with a resource lock request which corresponds to said one or more parameter values

indicating a data reliability classification associated with the resource lock request;

[152] a second data structure including:

[154] a field which references the first data structure.

[col. 5, lns. 20-24] 20. A system according to claim 19, wherein the field which stores an access mode stores a most restrictive access mode of the granted lock requests.

21. A system according to claim 19, wherein the field which stores parameters comprises:

[172] a field which stores read parameters; and

[173] a field which stores write parameters.

22. A system according to 21, wherein:

[col. 6, lns. 32-35] the read parameters are aggregated read parameters of granted read requests; and

[col. 6, lns. 32-35] a write parameters are aggregated write parameters of granted write requests.